ABSTRACT

A method for forming an NiCr seed layer based bottom spin valve sensor element having a synthetic antiferromagnet pinned (SyAP) layer and a capping layer comprising either a single specularly reflecting nano-oxide layer (NOL) or a bi-layer comprising a non-metallic layer and a specularly reflecting nano-oxide layer and the sensor element so formed. The method of producing these sensor elements provides elements having higher GMR ratios and lower resistances than elements of the prior art.